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ABSTRACT

A low power wireless communication (personal LAN) system includes a plurality of wireless devices with each wireless device including a radio transceiver. The radio transceiver may take the form of an insertable card that fits within a slot in the wireless device. The plurality of wireless devices establishes a wireless network with at least two of the plurality of wireless devices share beaconing responsibilities to coordinate operation of the wireless network. The beaconing responsibilities may be shared on a round robin basis or may be shared according to the operating characteristics of the wireless devices with some wireless devices assuming greater beaconing responsibilities than other of the wireless devices. One of the plurality of wireless devices may separate from the wireless network to become a separated wireless device. In such case, at least one of the wireless devices attempts to reestablish communications with the separated wireless device. Further, the separated wireless device may also attempt to reestablish communication with the wireless network. At least two of the wireless devices may separate from the wireless network to form an alternate wireless network separate from the wireless network. In such case, the at least two wireless devices of the alternate network may rejoin the wireless network after the separation. The wireless devices may establish the wireless network when proximate to one another and operating at a lower power level while continuing operation at a higher power level. The wireless devices establish the wireless network when in a first proximity to one another and continue to communicate while in a second proximity to one another.

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